

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of claims in this application.

1. (Canceled)
2. (Canceled)
3. (Currently Amended) Apparatus for use in perforating a wellbore, the apparatus comprising:
 - a holder mechanism adapted to receive a first shaped charge, the first shaped charge having a selected size;
 - a loading tube having a mounting mechanism adapted to connect a second shaped charge having a selected size larger than that of the first shaped charge, the holder mechanism being configured for connection to the mounting mechanism for mounting of the first shaped charge in the loading tube; and
 - ~~a loading tube of a perforating gun, the loading tube having a jacket; and~~
 - ~~an adapter adapted to receive and mount a shaped charge of a selected size into the jacket of the loading tube, the jacket being formed to hold shaped charges of a size larger than the selected size, wherein the loading tube comprises:~~
 - a circular opening having a predetermined diameter, the mounting mechanism comprising:
 - a jacket having an outer surface formed to engage the circular opening and an inner surface.

4. (Original) The apparatus of claim 3, wherein the holder mechanism comprises a housing assembly, having an upper section and a lower section connectable together to define an outer surface and an inner bore, the outer surface being adapted to engage the inner surface of the jacket and having a selected size approximately the same as the size of the second shaped charge, the inner bore being adapted to receive the first shaped charge.
5. (Original) The apparatus of claim 4, wherein the mounting mechanism comprises:
 - a recess formed in the outer surface of the housing assembly; and
 - a protruding element formed on the inner surface of the jacket, the protruding element being adapted to engage the recess in the housing assembly to lock the housing assembly and the first shaped charge to the jacket of the loading tube.
6. (Original) The apparatus of claim 4, wherein the first shaped charge further comprises:
 - a casing having a proximal end and a distal end;
 - a primer column arranged on the proximal end of the casing;
 - an explosive charge arranged between the proximal end and distal end of the casing; and
 - a liner arranged on the distal end of the casing.

7. (Original) The apparatus of claim 6, further comprising an opening formed in the upper section of the housing assembly to expose the distal end of the casing of the first shaped charge.
8. (Original) The apparatus of claim 6, further comprising an opening formed in the lower section of the housing assembly to receive a detonating cord and to establish communication between the detonating cord and the primer column on the proximal end of the casing of the first shaped charge.
9. (Original) The apparatus of claim 3, wherein the first shaped charge further comprises:
 - a casing having a proximal end and a distal end;
 - a primer column arranged on the proximal end of the casing;
 - an explosive charge arranged between the proximal end and distal end of the casing; and
 - a liner arranged on the distal end of the casing.
10. (Withdrawn) The apparatus of claim 9, wherein the holder mechanism comprises at least one rib formed on the inner surface of the jacket to support the proximal end of the casing.
11. (Withdrawn) The apparatus of claim 9, wherein the mounting mechanism comprises:

a recess formed in the casing of the first shaped charge; and

a protruding element formed on the inner surface of the jacket, the protruding element being adapted to engage the recess in the casing of the first shaped charge to lock the first shaped charge to the jacket of the loading tube.

12. (Withdrawn) The apparatus of claim 11, further comprising an opening formed in the jacket to receive a detonating cord and to establish communication between the detonating cord and the primer column on the proximal end of the casing of the first shaped charge.

13. (Canceled)

14. (Previously presented) A method for loading a small shaped charge in a standard loading tube of a perforating gun, comprising:

providing the standard loading tube with a standard jacket mechanism for receiving shaped charges of a particular size larger than the small shaped charge; and

inserting the small shaped charge into an adapter, and installing the adapter into the standard jacket mechanism of the loading tube.

15. (Previously presented) A charge holder for use in well perforation operations, the charge holder comprising:

a jacket sized for engagement with a loading tube of a standard size;

a housing assembly, having an upper section and a lower section

connectable together to define an outer surface and a bore therein, the outer surface being adapted to engage the jacket used in the loading tube, the inner bore being adapted to receive a shaped charge; and

a fastening mechanism for connecting the housing assembly to the jacket.

16. (Original) The charge holder of claim 15, further comprising:

a groove formed in the lower section of the housing assembly to receive a detonating cord; and

an opening formed in the lower section of the housing assembly to establish communication between the shaped charge and the detonating cord.

17. (Original) The charge holder of claim 15, wherein the fastening mechanism comprises:

a recess formed in the outer surface of the housing assembly; and

a protruding element formed on the jacket, the protruding element being adapted to engage the recess in the housing assembly to lock the housing assembly to the jacket of the loading tube.

18. (Canceled)

19. (Canceled)

20. (Previously presented) A shaped charge holder system, comprising:

a jacket sized for engagement with a loading tube of a standard size;

a housing having an outer surface, an inner bore, and an opening therein for communicating with the inner bore, the outer surface adapted to engage the jacket used in the loading tube, the inner bore adapted to receive a shaped charge; and

a fastening mechanism for connecting the housing assembly to the jacket.